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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,647	03/30/2001	Kazushi Wada	09792909-4799	7645

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EXAMINER

SOWARD, IDA M

ART UNIT PAPER NUMBER

2822

DATE MAILED: 10/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/822,647

Applicant(s)

WADA, KAZUSHI

Examiner

Ida M Soward

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to Applicant's amendment filed July 16, 2002.

Claim Rejections - 35 USC § 112

The rejection to claims 1-3 under 35 U.S.C. 112, second paragraph, has been withdrawn due to the amendment filed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art Figure 4 in view of Ronzani et al. (US 2002/0005819 A1).

Prior Art Figure 4 teaches a solid state imaging device having an output portion **113** connected to an output end of a horizontal transfer register **112**, the output portion having a gate structure **142** including an oxide film **121** and a nitride film **122**, the solid-state imaging device comprising: upper layer films **151** & **161** allowing light to pass through; a metal made shield film **155** formed in such a manner as to cover a region of the gate structure including an oxide film, excluding a transfer portion of the solid state imaging device, wherein a metal made film **145** has an opening at a position directly over a floating diffusion region **143** of the solid state imaging device; and a film **161** capable of absorbing ultraviolet rays, the organic film being formed in such a manner as to cover a region of the gate structure including an oxide film and a nitride film, excluding a transfer portion of the solid state imaging device. However, Prior Art Figure

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4 fails to teach a metal made shield film for excluding a light receiving portion and a wavelength of 400 nm or less. Ronzani et al. a metal made shield film for excluding a light receiving portion and a wavelength of 200 nm to 1000 nm which fits in the range of 400 nm or less (page 8, paragraph [0135]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the solid-state imaging device of Prior Art Figure 4 with the metal made shield of Ronzani et al. to improve resolution.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art Figure 4 and Ronzani et al. (US 2002/0005819 A1) as applied to claims 1-2 above, and further in view of Haga et al. (5,140,397).

Prior Art Figure 4 and Ronzani et al. teach all mentioned in the rejection above. However, Prior Art Figure 4 and Ronzani et al. fail to teach an organic film capable of absorbing rays. Haga et al. teach an organic film 11 capable of absorbing rays (Figure 3, col. 6, lines 1-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the solid-state imaging device of Prior Art Figure 4 and the metal made shield of Ronzani et al. with the organic film of Haga et al. to lower manufacturing costs.

Response to Arguments

Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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The following patents are cited to further show the state of the art with respect to solid-state imaging devices:

Endo et al. (4,875,101)

Harada (5,898,195)

Miyagawa et al. (5,504,526)

Takizawa (5,956,570).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

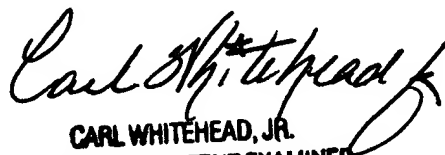
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ida M. Soward whose telephone number is (703) 305-3308. The examiner can normally be reached on Monday through Thursday, from 6:30 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead, can be reached at (703) 308-4940. The Group fax number is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

ims
9/12/02


CARL WHITEHEAD, JR.
SUPERVISORY PATENT EXAMINER
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